AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A system for positioning a dental X-ray apparatus, comprising:

    - an input and output device for interactive control,

    - a storage area, in which at least one digitized dental X-ray image and information concerning the dental X-ray apparatus assignable to the digitized dental X-ray image are stored,

    - a computer interface, via which information can be interchanged with the dental X-ray apparatus,

    - means for selecting areas in the digitized dental X-ray image,

    - a processing unit which effects calculations based on the digitized dental X-ray image, the relevant information concerning the dental X-ray apparatus, and the selected area, in order to ascertain control data for the dental X-ray apparatus,

    - wherein the dental X-ray apparatus is controllable by said control data such that the selected area is covered when a new dental X-ray image is made.

2. (Previously Presented) A system as defined in claim 1, wherein the digitized X-ray image comprises an individual image of a patient.

3. (Previously Presented) A system as defined in claim 1, wherein the X-ray apparatus is of a type suitable for various types of image, and wherein means for selecting the type of image are provided.

4. (Previously Presented) A system as defined in claim 1, further comprising means for positioning a patient relatively to the X-ray apparatus, wherein the control data is adapted to control said means for positioning the patient.

5. (Previously Presented) A system as defined in claim 1, wherein the information concerning the X-ray apparatus comprises coordinates of a trajectory which have been saved in relation to the digitized X-ray image.

6. (Previously Presented) A system as defined in claim 1, wherein the storage area includes current and/or voltage parameters saved in relation to the digitized X-ray image.

7. (Previously Presented) A system as defined in claim 1, wherein the storage area includes information concerning gray tones in the representation of the image saved in relation to the digital X-ray image.

8. (Previously Presented) A system as defined in claim 1, wherein the processing unit includes computation for determining said control data which takes into account the type of image.

9. (Previously Presented).. A system as defined in claim 1, wherein the processing unit includes computation for determining said control data which takes into account the purpose of diagnosis.

10. (Previously Presented) A system as defined in claim 1, wherein the processing unit includes patient-dependent data, including one of size, weight, type, race, age, jaw shape, and previous treatments which are taken into account when determining said control data.

11. (Previously Presented) A system as defined in claim 1, further comprising means for automatically recognizing areas, particularly teeth, by pattern recognition algorithms.

12. (Previously Presented) A system as defined in claim 1, wherein the selecting means are designed such that areas can be selected manually.

13. (Previously Presented) A system as defined in claim 10, wherein the processing unit includes one of statistical and stochastic linkings of the patient-dependent data.

14. (Previously Presented) A system as defined in claim 1, further comprising means provided for making a series of radiograms at different positions starting from a selected position.

15. (Original) Dental X-ray apparatus, characterized by a system as defined in any one or more of the previous claims.

16. (Currently Amended) A method of positioning one of an emitter and a detector of a dental X-ray apparatus using an existing digitized dental X-ray image and information concerning the <u>dental</u> X-ray apparatus and assignable to the digitized dental X-ray image, comprising the steps of:

      - loading and displaying at least one digitized dental X-ray image,

      - determining coordinates of areas, with reference to the digitized dental X-ray image, which are to be depicted in another X-ray image,

      - loading information concerning the <u>dental</u> X-ray apparatus,

      - carrying out computation on the basis of the digitized X-ray image, relevant information concerning the <u>dental</u> X-ray apparatus, and ~~the~~ <u>a</u> selected area, in order to ascertain control data which controls the dental X-ray apparatus such that the selected area can be depicted in a <u>new</u> dental X-ray image.

17. (Previously Presented) A method as defined in claim 16, wherein the digitized X-ray image comprises an individual image of the patient.

18. (Previously Presented) A method as defined in claim 16, wherein the type of image to be made by the X-ray apparatus is selected prior to the loading step.

19. (Previously Presented) A method as defined in claim 16, wherein the control data is adapted to control means for positioning the patient relative to the X-ray apparatus.

20. (Previously Presented) A method as defined in claim 16, wherein the information concerning the X-ray apparatus comprises coordinates of the trajectory which have been saved in relation to the digitized X-ray image, and a segment of the trajectory is calculated on the basis of the selected area.

21. (Previously Presented) A method as defined in claim 16, wherein the computation step includes one of current and voltage parameters which are saved in relation to the digitized X-ray image.

22. (Previously Presented) A method as defined in claim 16, wherein the computation for determination of the control data takes into account one of the type of examination and the purpose of diagnosis of the patient.

23. (Previously Presented) A method as defined in claim 16, wherein the patient-dependent data, including one of size, weight, type, race, age, jaw shape, and/or previous treatments, are taken into account when computing the control data.

24. (Previously Presented) A method as defined in claim 16, wherein the computation step includes automatically recognizing areas, particularly teeth, one of manually by pattern recognition algorithms.

25. (Previously Presented) A method as defined in claim 16, wherein the areas can be determined manually.

26. (Previously Presented) A method as defined in claim 23, wherein one of statistical and/or stochastic linkings of the patient-dependent data are carried out.

27. (Previously Presented) A method as defined in claim 16, further comprising the step of making a series of radiograms at different positions starting from the selected position.